20100624.ba v04_n339.bam.20100624

>From ???@??? Thu Jun 24 13:01:07 2010 -0500
Date: Thu, 24 Jun 2010 19:01:01 GMT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 4339
Message-Id: <20100624190101.B0A7FB6E6DC@minime.theporch.com>

BOATANCHORS Digest 4339

Topics covered in this issue include:

1) Eldico SSB-100 Lives!
   by "JAMES HANLON" <knjhanlon@msn.com>
2) Re: Eldico SSB-100 Lives!
   by john <johnmb@nc.rr.com>
3) NC-183 Power Transformer
   by Paul Monroe <pmonroe1@tds.net>
4) RE: [Boatanchors] HT-20
   by "Singley, Rodger" <rbsingl@ilstu.edu>
5) Heathkit SB221 amplifier manual pages
   by ray jefferson <ruetama7@gmail.com>
6) Re: Heathkit SB221 amplifier manual pages
   by "B Smith" <smithab11@comcast.net>
7) SB-221 manual copy
   by "B Smith" <smithab11@comcast.net>
8) Trade
   by "Guido" <laffitte@prtc.net>
9) RMA tube numering code
   by John Sehring <wb0eq@yahoo.com>
10) Sprague capacitor checkers
   by John Sehring <wb0eq@yahoo.com>
11) Re: Sprague capacitor checkers
   by "Arden Allen" <gumbear@pacbell.net>
12) FA: Hallicrafters PM-23 Speaker
   by Richard Dillman <ddillman@igc.org>
13) Sprague Cap Ckers
   by John Sehring <wb0eq@yahoo.com>
14) New StationPro Website
   by "Jim Garland" <4cx250b@muohio.edu>

Message-ID: <SNT106-DS560C8D4BC77B8EDF7A68DA0C00@phx.gbl>
From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Eldico SSB-100 Lives!
Date: Fri, 18 Jun 2010 13:31:50 -0600

```
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_000_0012_01CB0EEA.9EE44FD0"

This is a multi-part message in MIME format.

------=_NextPart_000_0012_01CB0EEA.9EE44FD0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

I just have to share this with a few kindred souls who will understand.

My 1955 vintage Eldico SSB-100 which became my first sideband rig in =
1968 for all of $50 tried its best to become a non-functional museum =
piece last January when I was tuning it up for the Classic Exchange.  A =
hermetic audio transformer succumbed to a B+ short to ground in the =
plate pin of the socket of the 6C4 it was feeding, and it managed to =
spray its potting tar all around the exciter chassis, making quite a =
mess.  Also, there were no specs on it in the Eldico manual, so there I =
was with a burned-up 1955 vintage audio transformer and not much idea =
what to replace it with.  Fortunately, that part of the SSB-100 circuit =
closely resembles the GE SSB Junior described in GE Ham News for =
November-December, 1950; and the SSB Junior used a Stancor A-53C =
transformer in that spot.  The Stancor transformer has long since become =
unobtanium, but AES in Tempe did have a duplicate, so I acquired one and =
installed it and a new socket for the 6C4 ala the SSB Junior circuit.

About that time it got too darned cold out in the garage to do much more =
work, so I put off the remainder of the job until spring.  Well last =
week I started by cleaning out the garage, a job that took me roughly =
three hours a day for a week.  My last project was to finish up the =
SSB-100 which was occupying the workbench.  After finding and fixing one =
broken connection, perhaps caused by the tar spray, the old rig actually =
came to life!  A little jiggling of the carrier null pots and the audio =
balance controls (for maximum rejection of the unwanted sideband), and =
it was actually making a pretty decent SSB signal. =20

Today I got it on the air on 40 meters and worked a couple of "locals," =
a mobile in Texas and a fellow at his cabin in northern Colorado, and =
then I checked in to the High Noon Net on 7240.  Reports on the audio =
were good, and no one complained about too much carrier or unwanted =
upper sideband.

So it looks like one more time I've gotten the Eldico back on the air.  =
I just hope it lasts at least until the Fall Classic Exchange.

73, and thanks for "listening,"
```

Jim Hanlon, W8KGI
------=_NextPart_000_0012_01CB0EEA.9EE44FD0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*         ---REMAINDER OF MESSAGE TRUNCATED---             *
*     This post contains a forbidden message format        *
*  (such as an attached file, a v-card, HTML formatting)  *
*    Mail Lists at theporch.com only accept PLAIN TEXT     *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting  *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

------=_NextPart_000_0012_01CB0EEA.9EE44FD0--

Message-Id: <6.2.1.2.2.20100618173449.03260110@pop-server.nc.rr.com>
Date: Fri, 18 Jun 2010 17:38:59 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@nc.rr.com>
Subject: Re: Eldico SSB-100 Lives!
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hi Jim,

Hooray!! It's a nice feeling to get something broken back to running again, especially such a rig as this. Is this the model with the black paint that falls off the front panel, or the military model with the nice grey finished front? Wonder if they are both the same rig with just cosmetic differences, or different beasts all together?

Hope all is well on the green side of the Sandias

John K5MO

PS: Did I read that the surplus place just east of Wyoming on Central is no more?

At 03:31 PM 6/18/2010, JAMES HANLON wrote:
>I just have to share this with a few kindred souls who will understand.
>
>My 1955 vintage Eldico SSB-100 which became my first sideband rig in 1968
>for all of $50 tried its best to become a non-functional museum piece last

>January when I was tuning it up for the Classic Exchange. A hermetic
>audio transformer succumbed to a B+ short to ground in the plate pin of
>the socket of the 6C4 it was feeding, and it managed to spray its potting
>tar all around the exciter chassis, making quite a mess. Also, there were
>no specs on it in the Eldico manual, so there I was with a burned-up 1955
>vintage audio transformer and not much idea what to replace it
>with. Fortunately, that part of the SSB-100 circuit closely resembles the
>GE SSB Junior described in GE Ham News for November-December, 1950; and
>the SSB Junior used a Stancor A-53C transformer in that spot. The Stancor
>transformer has long since become unobtanium, but AES in Tempe did have a
>duplicate, so I acquired one and installed it and a new socket for the 6C4
>ala the SSB Junior circuit.
>
>About that time it got too darned cold out in the garage to do much more
>work, so I put off the remainder of the job until spring. Well last week
>I started by cleaning out the garage, a job that took me roughly three
>hours a day for a week. My last project was to finish up the SSB-100
>which was occupying the workbench. After finding and fixing one broken
>connection, perhaps caused by the tar spray, the old rig actually came to
>life! A little jiggling of the carrier null pots and the audio balance
>controls (for maximum rejection of the unwanted sideband), and it was
>actually making a pretty decent SSB signal.
>
>Today I got it on the air on 40 meters and worked a couple of "locals," a
>mobile in Texas and a fellow at his cabin in northern Colorado, and then I
>checked in to the High Noon Net on 7240. Reports on the audio were good,
>and no one complained about too much carrier or unwanted upper sideband.
>
>So it looks like one more time I've gotten the Eldico back on the air. I
>just hope it lasts at least until the Fall Classic Exchange.
>
>73, and thanks for "listening,"
>
>Jim Hanlon, W8KGI

Message-ID: <4C1C0477.5060908@gmail.com>
Date: Fri, 18 Jun 2010 18:42:47 -0500
From: Paul Monroe <pmonroe1@tds.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: NC-183 Power Transformer
Content-Type: text/plain; charset=ISO-8859-1; format=flowed
Content-Transfer-Encoding: 7bit

Hi All,

This discussion about the Eldico and the burned out xfmr reminded me

that I have a NC-183 with a burned out Xfmr. Does anyone have the spec's
for this transformer?

73,

Paul W9MEH

Content-class: urn:content-classes:message
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
Subject: RE: [Boatanchors] HT-20
Date: Fri, 18 Jun 2010 18:54:11 -0500
Message-ID: <AA28191F88740543A764089198FF86DEF1A7D8@COBEXCHANGE.ad.ilstu.edu>
From: "Singley, Rodger" <rbsingl@ilstu.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: <boatanchors@theporch.com>

Mac,

The SX-88 was the receiver used for Clipperton. I acquired one of the =
four SX-88 receivers belonging to Bob Denniston a few years ago but I =
don't think it was on the island. It did come with one of the QSL cards =
confirming contact with Bob's home station back in Iowa along with some =
other paraphernalia.=20

Mine is currently paired with a Ranger/Desk KW since I have yet to find =
an HT-20 :)

Rodger WQ9E

-----Original Message-----
From: boatanchors-bounces@mailman.qth.net on behalf of D C *Mac* =
Macdonald
Sent: Fri 6/18/2010 6:45 PM
To: w9ran@oneradio.net; boatanchors@mailman.qth.net; =
hallicrafters@mailman.qth.net
Subject: Re: [Boatanchors] HT-20
=20

If I remember correctly, HT-20 transmitters were what was taken
on the big (first?) DXpedition to FO8AJ, Clipperton Island back
in the mid-to-late 1950s. Pics of the rigs MAY have been on the
cover issue of CQ magazine that covered that operation.
I have forgotten which Halli receiver was used, but it might have
been the SX-101 series.

* * * * * * * * * * *
* 73 - Mac, K2GKK/5 *
* (Since 30 Nov 53) *
* Oklahoma City, OK *
* U.S.A.F., Retired *
* * * * * * * * * * *

=20

Date: Fri, 18 Jun 2010 18:19:26 -0500
From: ranickel@comcast.net
To: boatanchors@mailman.qth.net; hallicrafters@mailman.qth.net
Subject: Re: [Boatanchors] HT-20

On 6/18/2010 5:38 PM, Brian Harris wrote:

I have been offered an HT-20 that is minus the cabinet and has
front paint that's peeling. As I have never owned/used/seen
one before I am clueless as to its value or desireability.

Brian,

=20
They're fairly rare, and a very desirable transmitter in my opinion.=20
Mine was in such bad shape due to years of storage in a humid area that=20
not a single shaft could be turned, and I ended up having to drill out=20
both setscrews in each knob! Before I committed to restoration I=20
checked out all the iron, thinking that a bad transformer would be a=20
deal-killer. But they all checked OK, and other than the normal R and C=20
replacements, restoration went pretty well. I did end up having to=20
replace the two variable caps in the driver stages due to excessive=20
corrosion that resulted in arcing, but I thought this was a pretty good=20
testimony to the quality of the design and construction, in light of the =

shape it was in when I got it. My front panel was redone by W3HM when=20
W=D8YVA was restoring a couple of HT-20s and with the powder-coat finish =

it now looks better than new. I have it paired with an SX-88 and an=20
HT-18 VFO and get excellent reports on the air and it's solid as a rock=20
when putting out 120 watts of carrier.
=20
I put a few pics up when I was working on it:=20

http://smg.photobucket.com/albums/v652/ranickel/HT-20/

The HT-20 is basically Hallicrafters version of a Johnson Viking I,=20
built to co-exist with TV-watching neighbors. Unless you find major=20
problems I'd sure restore it!
=20
73, Bob W9RAN   =20

____
Boatanchors mailing list
Home: http://mailman.qth.net/mailman/listinfo/boatanchors
Help: http://mailman.qth.net/mmfaq.htm
Post: mailto:Boatanchors@mailman.qth.net

List Administrator: Duane Fischer, W8DBF
** For Assistance: dfischer at usol.com **=20

This list hosted by: http://www.qsl.net
Please help support this email list: http://www.qsl.net/donate.html

----

MIME-Version: 1.0
Date: Sat, 19 Jun 2010 09:49:57 -0600
Message-ID: <AANLkTilwMkxoVWna8UfwTJtZtjnddwMM98_d2sQfZmPp@mail.gmail.com>
Subject: Heathkit SB221 amplifier manual pages
From: ray jefferson <ruetama7@gmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Content-Type: text/plain; charset=ISO-8859-1

Greetngs: I have a dire need for 2 or 3 pages in the manual for the
Heathkit SB221 amplfier. I need only the two or three pages devoted
to tune up and loading procedures. Could someone provide these pages
by copy printer etc. I have had no luck with computer prints! Would
be glad to pay time and foto copys printedfrom the manual as hours of
searching for sources have produced nothing.. Sure hope someone can
help. Many thanks.

Ray Jefferson
W7fni........since 1934.
Remember ....as the man says Were all in this together!

MIME-Version: 1.0
Message-Id: <4C1D07F2.000036.02360@DELL560>
Date: Sat, 19 Jun 2010 14:09:54 -0400 (Eastern Daylight Time)
Content-Type: Multipart/related;
  charset="iso-8859-1";

type="multipart/alternative";
boundary="------------Boundary-00=_I4X9D793LVC000000000"
From: "B Smith" <smithab11@comcast.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Heathkit SB221 amplifier manual pages

--------------Boundary-00=_I4X9D793LVC000000000
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*         ---REMAINDER OF MESSAGE TRUNCATED---             *
*     This post contains a forbidden message format        *
*  (such as an attached file, a v-card, HTML formatting)  *
*    Mail Lists at theporch.com only accept PLAIN TEXT    *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting  *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

--------------Boundary-00=_I4X9D793LVC000000000--

MIME-Version: 1.0
Message-Id: <4C1D0A9F.00003D.02360@DELL560>
Date: Sat, 19 Jun 2010 14:21:19 -0400 (Eastern Daylight Time)
Content-Type: Text/Plain;
charset="iso-8859-1"
From: "B Smith" <smithab11@comcast.net>
Content-Transfer-Encoding: 7bit
To: Old Tube Radios <boatanchors@theporch.com>
Subject: SB-221 manual copy

If someone could send me the pdf file on the SB-221, I will print it and mail it to Ray.

73

breck k4che

-------Original Message-------

From: ray jefferson
Date: 6/19/2010 11:58:31 AM
To: Old Tube Radios
Subject: Heathkit SB221 amplifier manual pages

Greetngs: I have a dire need for 2 or 3 pages in the manual for the

Heathkit SB221 amplfier. I need only the two or three pages devoted to tune up and loading procedures. Could someone provide these pages by copy printer etc. I have had no luck with computer prints! Would be glad to pay time and foto copys printedfrom the manual as hours of searching for sources have produced nothing.. Sure hope someone can help. Many thanks.

Ray Jefferson
W7fni........since 1934.
Remember ....as the man says Were all in this together!

Message-Id: <81r3gj$1kp1lk7@avas3.coqui.net>
From: "Guido" <laffitte@prtc.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Trade
Date: Sun, 20 Jun 2010 11:51:22 -0400
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="----=_NextPart_000_003A_01CB106E.E80304B0"

This is a multi-part message in MIME format.

------=_NextPart_000_003A_01CB106E.E80304B0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

I have an Icom R75 with AM Synchronous detector with the DSP module, power supply original box and manuals. It is in perfect condition and I would like to trade it for a good R390A or R390URR. The receiver does not have to be a mint restored unit but it must be complete and with no major issues. I know both receivers since I have restored several of them in the past. I could place the R75 in the e-place but I thought that maybe someone in the list could be interested in a trade. The last R390A in my shack left sometime ago and its replacement, that was on a long term loan, was never returned and trashed.The shack has an R392 but needs an R390.

Best 73s

Guido Santacana KP4FAR

------=_NextPart_000_003A_01CB106E.E80304B0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*         ---REMAINDER OF MESSAGE TRUNCATED---            *
*     This post contains a forbidden message format       *
*  (such as an attached file, a v-card, HTML formatting)  *
*    Mail Lists at theporch.com only accept PLAIN TEXT    *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting  *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

------=_NextPart_000_003A_01CB106E.E80304B0--

Message-ID: <7838.5612.qm@web45609.mail.sp1.yahoo.com>
Date: Mon, 21 Jun 2010 14:45:52 -0700 (PDT)
From: John Sehring <wb0eq@yahoo.com>
Subject: RMA tube numering code
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Check this out for details on the RMA Tube Numbering Code:

http://tubesound.com/2010/04/09/rma-tube-numbering-code/

Also this web site has other stuff about tube testers (see his tube tester collection!) and other vintage test gear.

--John WB0EQ

Message-ID: <463044.19023.qm@web45602.mail.sp1.yahoo.com>
Date: Mon, 21 Jun 2010 17:49:53 -0700 (PDT)
From: John Sehring <wb0eq@yahoo.com>
Subject: Sprague capacitor checkers
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

I've got a surplus of riches here when it comes to capacitor checkers.

I've had a Sprague TO-5 for many years; many of its components had drifted & needed replacement.

And now, a TO-6 and a TO-6A followed me home from Seaside OR hamfest recently.

I have an original TO-5 manual and downloaded paperwork for the TO-6 and -6A from the web.

I have seen extensive data on the TO-3 (which looks physically quite different from later ones) on the web, including alignment instructions at:

http://tubesound.com/2009/11/09/sprague-to3-tel-ohmike-calibration/

My quick impressions of the TO-5 and TO-6/6A are that they are quite different. Gone is the turns ratio measurement. The execution of the bridge circuitry is different. The tube complement is changed; instead of 1619/1629/6C4 we have 6BL7/6AB4/6C4/6E5.

One vital change is the addition of diodes across the meter to prevent accidental damage to it. I have blown a meter so I (sadly) know. I strongly suggest you add a couple of diodes (one for each direction) to the meter.

There is no calibration & maintenance info in the manuals. However, at the end of the TO-6 .pdf file (12.0 Meg) at edebris.com you'll find cal info for TO-4, 5, 6 & 6A.

I'll be digging into these units.

Love those magic eye tubes!

--John WB0EQ

Message-ID: <000701cb1236$2c4cb670$d39d480c@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Sprague capacitor checkers
Date: Tue, 22 Jun 2010 11:10:13 -0700
MIME-Version: 1.0
Content-Type: text/plain;
    charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> ......However, at the end of the TO-6 .pdf file (12.0 Meg) at edebris.com you'll find cal info for TO-4, 5, 6 & 6A.

John, could you copy out just the cal info text and post it to the List?
Thanks.

```
Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)


------------------------------
Message-ID: <30973927.1277315066436.JavaMail.root@elwamui-
muscovy.atl.sa.earthlink.net>
Date: Wed, 23 Jun 2010 13:44:26 -0400 (EDT)
From: Richard Dillman <ddillman@igc.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FA: Hallicrafters PM-23 Speaker
Mime-Version: 1.0
Content-Type: text/plain; charset=UTF-8
Content-Transfer-Encoding: 7bit


I've listed a Hallicrafters PM-23 speaker on eBay under item number 330445655814.

RD

=================================
Richard Dillman
Chief Operator, Coast Station KSM
Maritime Radio Historical Society
http://www.radiomarine.org
=================================

------------------------------
Message-ID: <250665.27270.qm@web45607.mail.sp1.yahoo.com>
Date: Wed, 23 Jun 2010 16:16:45 -0700 (PDT)
From: John Sehring <wb0eq@yahoo.com>
Subject: Sprague Cap Ckers
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=utf-8
Content-Transfer-Encoding: quoted-printable

Arden Allen suggested I post these cal. instructions.=0A=0A--John=0A-------=
----------------------------------------------------=0A=0ASPRAGUE TO-5 =
AND -6 CALIBRATION (with notes on TO-4 similarities) =0ACAPACITANCE MEASURE=
MENT CALIBRATION by DavidK =0A=0ANote: Some models may have fixed or variab=
le resistors in the R12 or R14 positions to expand the ends =0Aof the range=
s. If your dial settings do not track properly, it may be helpful to add tr=
immers in these =0Alocations. See details below. =0ACaution: The TO-5 circu=
it uses high voltages for many of its tests. ALWAYS release all the black a=
nd red =0Abuttons before connecting or removing a capacitor. (This disables=
 the test voltages and discharges the =0Acapacitor.) =0A1. Recap/repair/res=
tore unit, check resistors where possible, verify normal operation. Be sure=
 to install =0Ameasured, precise replacements for C8 (.02 UF ) and C9 (2 UF=
). =0A2. Prepare the following 11 capacitors. As capacitor tolerances vary =
greatly, only measured, precise =0Acapacitors should be used. In some cases=
 you=E2=80=99ll need to use parallel (or series) capacitors. =0ARange C1-2:=
 lower 10 PF, center 200 PF, upper .005 UF =0ARange C3: lower 1000 PF, cent=
er .02 UF, upper .5 UF =0ARange C4: lower .1 UF, center 2 UF, upper 50 UF =
=0ARange C5: lower 50 UF, center 80 UF, upper 2000 UF. =0AIf possible, use =
an oscilloscope or VTVM for calibration. This will be easier and more accur=
ate than using =0Athe eye indicator. Connect your scope or meter to chassis=
 ground and the + terminal of the TO-5. A =0Abalanced bridge condition is i=
ndicated by lowest level (deepest AC null). Remember that with some =0Acapa=
citors, the Power Factor control must be adjusted to get accurate readings.=
 =0A3. Start by aligning Range C3. Check dial reading with the .02 UF cap, =
loosening the dial setscrew and =0Are-positioning dial for exact reading, (=
Perform this step very carefully, it will affect everything else.) Then, =
=0Acheck with 1000 PF cap. The reading should be very close. If the dial re=
ads high with the 1000 PF cap, =0Aoptional trimmer R14 can compensate. (If =
the dial reads low, this suggests a problem in the unit.) =0ANext, check th=
e upper part of the range using the .005 UF cap. The reading should be very=
 close. If the =0Adial reads low, optional trimmer R12 can compensate. (If =
the dial reads high, this suggests a problem in =0Athe unit.) =0ARecheck di=
al indications with all three capacitors. =0A4. Check Range 4 using the .1,=
 2 UF, and 50 UF caps. The readings should be very close. =0A5. Check Range=
 5 using the 50 UF, 80 UF, and 2000 UF caps. The readings should be very cl=
ose. If this =0Arange is off =E2=80=98across the board=E2=80=9D, improvemen=
t is possible by replacing R15 (150K) with a 200K trimmer. =0A(R15 only aff=
ects this range.) Set the trimmer to 150K, connect the 80 UF cap, set the d=
ial for 80 UF, and =0Athen adjust the trimmer for balanced condition. Reche=
ck with the 50 UF and 2000 UF caps, readings =0Ashould be very close. =0A6.=
 Align Range C1-2. This sensitive adjustment has been saved for last, so th=
at the unit can be =E2=80=9Cleft as is=E2=80=9D =0Aafterwards. Connect the =
200 PF cap, set the dial for 200, and adjust trimmer C7 for balanced condit=
ion. =0A(C7 only affects this range.) Check with the 10 PF and 5000 PF caps=
, readings should be very close. If =0Athe dial reads low with the 10 PF ca=
p, a 1-3 PF capacitor can be soldered to the to the - / + binding posts =0A=
to trim this reading. A trimmer or =E2=80=9Cgimmick=E2=80=9D capacitor coul=
d also be used. =0A=0AAt this point it would be good to recheck other range=
s, though none of these steps should affect any =0Aprevious ones. Then - do=
ne! =0A------------------------------------------------- =0ANote 1: R12 and=
 R14 may have been added to the bridge pot during production. R12 would hav=
e been =0Aadded to the clockwise end of the pot to expand range on the uppe=
r side of the dial, and R14 would have =0Abeen added to the counter-clockwi=
se end of the pot to expand range on the lower side. These resistors =0Amay=
 be replaced with 100 ohm trimmers to correct range "spread" problems. To i=
nstall the trimmers =0Ameasure the existing resistors with an accurate ohm =
meter, then set the new trimmers to match the old =0Afixed resistors. Insta=
ll the R12 trimmer between the clockwise terminal of the pot and R10 (150 o=
hms, 2 =0Awatts) and install R14 between the counter-clockwise terminal of =
the pot and the wire to the switch board. =0ANote 2: It is advisable to add=
 back to back protection diodes (1N4007 or similar) across the meter for =
=0Aoverload protection. =0ANote 3: When using the TO-5, readings in the cen=
ter of the dial will be the most accurate. =0ASome notes about the circuitr=
y: =0AC1-2 range reference is C6 (180 PF) with C7 trimmer. =0AC1 range accu=
racy is +/-2% and +/- 1 PF =0AC2 range accuracy is 3% =0AC3 range reference=
 is C8 (.02 UF) =0AC3 range accuracy is 5% from .001 to .005 and 3% from .0=
05 to .1 =0AWith C3 range selected, R11 is inserted between the upper side =
of the range control and the power =0Atransformer. In all other ranges R11 =
is bypassed. =0AC4 range reference is C9 (2 UF) =0AC4 range accuracy is 5% =
from .1 to .5 and 3% from .5 to 10 UF =0AC5 range reference is C9 (2 UF), e=
xtended by shunt resistor R15 (150K). =0AR12 is an optional selected resist=
or on the upper side of the bridge dial, 0-100 ohms. Increasing the =0Aresi=
stance of R12 will expand range at the upper side of the dial. (With R12 or=
 R14 at 100 ohms, about =0A1/4=E2=80=9D of =E2=80=9Cdial diameter=E2=80=9D =
is added.) =0AR14 is an optional selected resistor on the lower side of the=
 bridge dial. Increasing the resistance of R14 =0Awill expand range at the =
lower side of the dial. =0A=0A=0A=0AELECTROLYTIC LEAKAGE TEST by Leigh =0A=
=0AThe 5 mA shunt on the TO-6 sets the current flowing through the metering=
 resistors. The sum of the =0Ametering resistances R14, R15, R16, and R17 i=
s 120000 ohms. If you apply 600 volts across 120K, you =0Adraw 5 mA of curr=
ent. In the case of the TO-6, a small portion of the 5 mA flows through the=
 meter, and =0Athe remainder through the 5 mA shunt. =0ATo set the shunt, s=
elect the 600-volt range and connect a digital voltmeter to the binding pos=
ts. Depress =0Abutton F and adjust the TO-6 voltage control for 600 volts o=
n the DVM. Then adjust the shunt for a fullscale =0A(600 volt) reading on t=
he meter. Check the full-scale voltages on the 60- and 6-volt ranges. If th=
ey're =0Aoff, check metering resistors R14 and R15 and replace any that are=
 off value. =0A=0A=0A=0AINSULATION RESISTANCE TEST CALIBRATION by Erik =0A=
=0AMake sure the 5mA meter shunt is correctly set before doing this (see ab=
ove). Start on the higher voltage =0Arange ("L"), and adjust the meter to "=
Set" using the "F" button. Connect a VERY large resistor, preferably =0Aa v=
alue that is near the middle of the meter scales (several hundred megohms, =
potentially available from =0Ainside an old high voltage probe), to the tes=
t terminals. Adjust pot R35 to establish the correct meter =0Areading to ma=
tch the value of the resistor you're using. =0ASwitch to "K" range and read=
just the meter to "Set" while holding in "F." Potential showstopper: if you=
r =0AR18 is only a fixed resistor, you'll have to change it to a pot or com=
bination fixed and pot to calibrate the =0A"K" range. Vary the resistance o=
f R18 to establish the correct meter reading for your resistor. Double =0Ac=
heck the "L" range, which shouldn't have been affected, and you're done. =
=0ANOTES ON SPRAGUE TO-4 by DavidK =0AElectrically the capacitance measurem=
ent circuits are nearly the same, and it looks to me as if the TO-5 =0Aproc=
edure should work on the others. =0AHowever, the parts designations are dif=
ferent, which might be confusing. These are the differences that I =0Asee: =
=0A1. The C1-2 reference capacitor,C-6 (180 PF) on the TO-5 is C-3 on the T=
O-4 and C-8 (changed to 190 =0APF) on the TO-6. =0A2. The C3 reference capa=
citor (.02) is C-8 on the TO-5, C-4 on the TO-4, and C-9 on the TO-6. =0A3.=
 The C4 and C5 reference capacitor (2 UF) is C-9 on the TO-5, C-5 on the TO=
-4, and C-10 on the TO-6. =0A4. The 150k shunt resistor that extends the hi=
 UF range is R-15 on the TO-5, R-6 on the TO-4, and R-13 =0Aon the TO-6. =
=0A=0AIn addition to those noted, the procedures above also include the ass=
istance and expertise of Chris H and Dave H (easyrider8). =0A=0A=0A=0A=0A  =
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From: "Jim Garland" <4cx250b@muohio.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: New StationPro Website
Date: Thu, 24 Jun 2010 13:00:37 -0600
Message-ID: <007001cb13cf$8a86f710$9300a8c0@Garland>
MIME-Version: 1.0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

Hi Gang,

As some of you may know, I've been working for the past two years on a master station controller (the "StationPro") that integrates all the RF, audio, and control switching for multiple rigs and amplifiers. This was a homebrew project born of necessity, since I have several boatanchor stations and needed a convenient way to keep them all on the air.

An article on the StationPro is scheduled for August QST (which will start appearing in mailboxes in 2-3 weeks). Today I uploaded my StationPro website, which I've been working on for many months. You can find it at www.w8zr.net/stationpro/.

I'm making the website available a bit earlier than the QST article, to give a heads up about the project to my boatanchor and Collins collector buddies. Hence this email.

As I've done in some of my previous projects, I've arranged to make circuit boards and prepunched/silkscreened enclosures available for builders. The remaining parts can be ordered on-line by cutting and pasting a filled-out order form into the Mouser website. If you think you might want to build one of these units, I'd recommend ordering parts before the QST article appears, so as to minimize possible backorder delays from Mouser.

Many thanks to those on the Boatanchors and CCA listserves who have offered suggestions and comments to me as this project has evolved. You've all been a great help. I'd also appreciate any thoughts any of you might have on how the new StationPro site can be improved.

73,
Jim W8ZR

End of BOATANCHORS Digest 4339
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